Pearson Software Consulting, LLC

Referencing Worksheet From Formulas

Excel allows you to refer to cells on other worksheets, but these links are not relative; there is no way to refer to the next or previous sheet without hard coding that sheet name in the formula. And if the user changes the order of the sheets or inserts a sheet, the formula will no longer refer to the next or previous sheet.

This page describes some VBA procedure that you can use to refer to the first, next, previous, or last worksheet in a workbook. These functions use the `Application.Caller` property, so they will not work unless they are called directly from worksheet cells.

These functions don't use `ActiveSheet` or `ActiveWorkbook`. Instead, they go through the `Parent` objects of the `Application.Caller` properties. Therefore, they will work regardless of what the active workbook or worksheet happens to be, and regardless of whether the formulas themselves resided in the same workbook as the cells which call them.

Returning The Number Of Worksheets In A Workbook

The following function will return the number of worksheets in the workbook which is calling the function.

```
Function SheetsCount() As Integer
    Application.Volatile True
    SheetsCount =
Application.Caller.Parent.Parent.Worksheets.Count
End Function
```

Returning The Index Of The Worksheet

The following function will return the index (position) number of the worksheet which is calling the function.

```
Function SheetPosition() As Integer
    Application.Volatile True
    SheetPosition =
Application.Caller.Parent.Index
End Function
```

Returning The Name Of The Current Worksheet

The following function will return the name of the worksheet which

is calling the function.

```
Function ThisSheetName() As String
    Application.Volatile True
    ThisSheetName =
Application.Caller.Parent.Name
End Function
```

Returning The Name Of The First Worksheet In The Workbook

The following function will return the name of the first worksheet in the workbook which is calling the function.

```
Function FirstSheetName() As String
    Application.Volatile True
    With Application.Parent.Parent.Worksheets
        FirstSheetName = .Item(1).Name
    End With
End Function
```

You can then use this name in an INDIRECT formula. For example to return the value of cell A1 from the first worksheet, use

```
=INDIRECT(FirstSheetName()&"!A1")
```

Returning The Name Of The Last Worksheet In The Workbook

The following function will return the name of the last worksheet in the workbook which is calling the function.

```
Function LastSheetName() As String
    Application.Volatile True
    With Application.Parent.Parent.Worksheets
        LastSheetName = .Item(.Count).Name
    End With
End Function
```

You can then use this name in an INDIRECT formula. For example to return the value of cell A1 from the last worksheet, use

```
=INDIRECT(LastSheetName()&"!A1")
```

Returning The Name Of The Previous Worksheet

The following function will return the name of the previous worksheet.

```
Function PrevSheetName() As String
    Application.Volatile True
    With Application.Caller.Parent
    If .Index = 1 Then
        PrevSheetName = .Parent.Worksheets
(.Parent.Worksheets.Count).Name
    Else
        PrevSheetName = .Previous.Name
    End If
    End With
End Function
```

If this function is called from the first worksheet in a workbook, the name of the last worksheet will be returned. In other words, it will "loop" back around to the last worksheet, rather than returning an error. You can then use this name in an INDIRECT formula. For example to return the value of cell A1 from the previous worksheet, use

```
=INDIRECT(PrevSheetName()&"!A1")
```

Returning The Name Of The Next Worksheet

The following function will return the name of the next worksheet.

```
Function NextSheetName() As String
    Application.Volatile True
    With Application.Caller.Parent
        NextSheetName = _
        .Parent.Worksheets((.Index
Mod .Parent.Worksheets.Count) + 1).Name
    End With
End Function
```

If this function is called from the last worksheet in a workbook, the name of the first worksheet will be returned. In other words, it will "loop" back around to the first worksheet, rather than returning an error. You can then use this name in an INDIRECT formula. For example to return the value of cell A1 from the next worksheet, use

```
=INDIRECT(NextSheetName()&"!A1")
```

Getting The Value Of A Cell On The Previous Worksheet

The following function will return the value of the specified cell on the previous worksheet. Addr is a string that may be either the address of a cell or the name of a defined name.

```
Function RefOnPrevSheet(Addr As String) As
Variant
    Application.Volatile True
    With Application.Caller.Parent
    If .Index = 1 Then
        RefOnPrevSheet = _
        .Parent.Worksheets
(.Parent.Worksheets.Count).Range(Addr).Value
    Else
        RefOnPrevSheet = .Previous.Range
(Addr).Value
    End If
    End With
End Function
```

You can use this function to get the value of C5 on the previous worksheet:

```
=RefOnPrevSheet("C5")
```

Note that the "C5" is passed in quotes, as a string, rather than a range reference.

Getting The Value Of A Cell On The Next Worksheet

The following function will return the value of the specified cell on the next worksheet. Addr is a string that may be either the address of a cell or the name of a defined name.

```
Function RefOnNextSheet(Addr As String) As
Variant
    Application.Volatile True
    With Application.Caller.Parent
    RefOnNextSheet = _
        .Parent.Worksheets((.Index
Mod .Parent.Worksheets.Count) _
         + 1).Range(Addr).Value
    End With
End Function
```

You can use this function to get the value of C5 on the next worksheet:

```
=RefOnNextSheet("C5")
```

Note that the "C5" is passed in quotes, as a string, rather than a range reference.